Introduction to Pillar 1 and Pillar 3 of the Global Soil Partnership.
Open Space for Workshop Session. Thursday 31 October 2013, 9.00-12.45

Summary

The GSP session for introduction to Pillar 1 of the Global Soil Partnership (GSP) *Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity*, was held in order to discuss with relevant stakeholders the ongoing preparation of the draft Plan of Action. During the session introduction to Pillar 1 was initiated with background history on the process of the GSP towards the development of Plan of Action following the Rules of Procedure of the GSP. In order to gather fruitful comments and broaden ideas before initiating development on the draft Plan of Action for pillar 1 inputs from different regions were shared regarding priorities for sustainable soil management as Conservation Agriculture as promotion for sustainable soil management in Argentina, priorities for sustainable soil management in Africa and frameworks and legislations for soil conservation in Europe. During the session Ms. Liesl Wiese was elected as the chair for the working group of Pillar 1.

Common sense was reached whereby the Plan of Action should be drafted towards a global orientation. The Plan of Action will also provide information and knowledge for sustainable soil management and identify current actions to improve its management. Once the Plan of Action is endorsed by the ITPS and Plenary Assembly specific implementation plans will be done at regional level through the regional soil partnerships to initiate activities in the regions. A vision for the Plan of Action document was discussed. During the session the inclusion of the term of soil indicators for sustainable soil management triggered a debate whether it should be incorporated or not due to the lack of soil indicators and difficulty in measuring these. However, these are already being discussed and ongoing efforts are being made to include proposed soil indicators for the Post-2015 Development Agenda.The mechanism on how to close yield gaps was brought into attention as the key in the vision and as the driver of the whole draft of the plan of action. Further, regarding soils in other systems apart from agriculture was also mentioned to keep in mind for the plan of action as well as the importance of the inclusion of socio-cultural aspects. Policy implementation for sustainable use of soil resources became also a key topic to include in the draft of Plan of Action. Optimum soil management practices will be identified and included which are considered important for policy definition and to be advised for implementation where appropriate. The structure of the initiated draft can be found in Annex 2.

Opening session

Introduction to Pillar 1 and its plan of action. Ronald Vargas, NRL, FAO

Mr. Vargas initiated by mentioning the expectations of the session calling for feedback on how to formulate the Plan of Action for Pillar 1 of the GSP among the participants. A draft shall be prepared by the formed working group for submission and review and to be endorsed in March 2014 by the ITPS during its next meeting and thereafter the final draft to Plenary Assembly in first week of July 2014 for its endorsement. It is by then that actions can start to be implemented in the field in order to support sustainable soil management practices as the rehabilitation and conservation of degraded soils. Mr. Vargas proceeded by mentioning the background of the process whereby in December 2012 "Managing Living Soils" workshop was organized to discuss 1) the status of the soils in terms of soil management in different countries and 2) needs and priorities of the countries in order to boost sustainable soil management. For further indications on what to focus on next steps Working Groups were established. The established working group comprise 21 members designated to work on a voluntary basis and the chair as the facilitator in charge of the output.Hereby all mechanisms for the process of draft Plan of Action for Pillar 1 were established according to the Rules of Procedure:

a) An international technical workshop will be organised by the Secretariat for the development of each Plan of Action with representatives from each Region to discuss and outline the scope and content of the concerned Plan of Action.

b) The workshop will nominate a working group, consisting of competent experts from active institutions and considering equitable representation, to further develop the draft Plan of Action through a transparent and open process in close consultation with the Secretariat.

c) The draft Plan of Action should be circulated for feedback from GSP partners to the Secretariat. The working groups will incorporate, inputs in a revised draft Plan of Action with the support of the Secretariat.

d) Plans of Action shall be submitted to the ITPS for consideration, finalisation and endorsement.

e) The endorsed Plan of Action will be submitted to the Plenary Assembly for approval.

f) The Secretariat will invite Partners to suggest how they could contribute to implementation of the approved Plan of Action and will develop an implementation plan together with the working group.

g) Implementation will be coordinated and facilitated by the Secretariat in close consultation with the interested Partners.

Inputs from the different regions regarding priorities for sustainable soil management.

How to promote sustainable soil management? Crucial elements that the plan should foresee.Maria Beatriz Giraudo, Aapresid.

Mrs. Giraudo through the Argentinean no-till farmers association (Aapresid) presented benefits through the adoption of no-till practices in Argentina to meet food security. Soil properties have been improved by soil porosity recovery, increase of soil carbon sequestration, elimination of plow-pans by stimulating deep root growth etc. No-till farming will work optimal combining good agricultural practices implemented as crop rotation, Integrated Pest Management, and nutrient use efficiency. For now 75% of Latinamerica has adopted no-till practices on their management. The mission of the association is to reach an adoption of 90% of no-till practices and 10% minimum tillage. The challenges of no-till adoption included the difficulty to find appropriate machinery according to the different soil conditions in various regions. Another challenge included to change people and farmers mindset who are not aware of the benefits of Conservation Agriculture.

Africa's Priorities for Sustainable Soil Management. Liesl Wiese, Agricultural Research Council-ISCW.

Mrs. Wiese summarized the main outputs from the GSP workshop report for Pillar 1 "Managing Living Soils" which serve as a basis for the development of Plan of Action. A set of principles for sustainable soil management were concluded. These are considered individually per country since challenges differ between regions. Common priorities should be taken towards i) Soil Organic Matter/soil carbon , ii) Maximize organic/mineral input efficiencies, iii) increased education among the public on soil science, iv) create and expand the platform for exchange of knowledge and information and v) raising the voice of soil society at policy level. Other main conclusions to address soil challenges for sustainable soil management included creation of policies, awareness raising, extension services through participatory learning services, creation of partnerships as the regional soil partnerships and sustainable soil management techniques.

There is a need to provide policy papers on sustainable soil management to governments. Countries should be encouraged to develop national soil policy in order to increase the probability for ratification of the importance of soil resources. Policies need to be designed to benefit investments within soil management creating favorable socio-economic conditions for the soil users. National ministers need to agree on holistic farming systems. Direct investments in sustainable soil fertility management should be created and practices of balanced nutrient management applied in order to "kick-start" biomass production. GSP should partner with Comprehensive Africa Agriculture Development Program (CAADP) which have set a benchmark for agricultural spending by governments using 10% of the annual budget. Through this partnership sustainable soil management could become a priority in the development agenda.

Awareness should be raised regarding the need of sustainable soil management to meet food security. Measures involve developing communication plans for stakeholders including schools and civil society, implementing and scaling out of practices and knowledge and gather towards a common understanding of sustainable soil management including social and ethical dimensions.

Regarding the promotion of sustainable soil management technologies should include all activities assisting in soil restoration , intensify agriculture through the use of external and internal nutrient resources, no-till farming where appropriate, the use of crop rotations, irrigation schemes according to the technical parameters, integrated soil and water management at watershed level and development of private and public partnerships in order to support sustainable soil management practices.

Priorities for Sustainable Soil Management in Europe. Soil Science and Conservation Research Institute Bratislava Slovakia and Member of ITPS.

Mrs. Sobocká presented the EU-thematic strategy for soil protection communication (2006) published in order to raise awareness and build political commitment towards soil conservation. The soils of Europe are threatened by various impacts as soil sealing , erosion, compaction ,salinization , contamination, decline in organic matter, landslides and flooding. The commission had envisaged a directive for soil protection called the EU Soil Protection as a component for the strategy but was not entered into force due to lack of common approach among the member states. On the other hand the Common Agricultural Policy (CAP) created in 1962 has been the most efficient policy instrument accounting with nearly half of the total EU budget providing incentives and funds for farming activities to implement good agricultural practices. The implementation of CAP has proved to reduce soil degradation within the EU through the introduction of the financial instrument and a single programme: the European Agricultural Fund for Rural Development (EAFRD). The pillars of the program involve:

I. Direct payment on the Utilized agriculture area (UAA)

II. Implementation of the agro-environmental measures as prerequisite for direct payments

III. Technical assistance

IV. LEADER programme

Further, it was brought to attention the involvement of the Soil Science and Conservation Research Institute in Bratislava (VUPOP) in the programme for Slovak Republic in pillar I and II of the program through 1) provision of direct payments to farmers, through the Land Parcel Information System (LPIS) the identification and quantification of eligible land for payments is made using ortophoto maps of scale 1:5000 for all agricultural land in Slovakia (Pillar 1) , 2) the control of physical blocks for the Agricultural Payment Agency (16 500 farms in Slovakia) (Pillar I) 3) the display and assessment of the applied agro-environmental measures (Pillar II) and 4) the provision of compiled databases for several purposes: agricultural land evaluation, quality of landscape ecosystem, ecosystem services etc.

The EU Policy on waste management was noted and regarded as a key element to prevent soil contamination. In particular the Sewage Sludge Directive in charge of the sewage sludge application in agriculture , the Waste Framework Directive , the Landfill Directive, Incineration Directive and the Urban Wastewater Directive were mentioned as efficient legislations to prevent soil contamination in Europe.

Nitrates and Water Framework directives (EU) set standards in order to minimize nutrient runoff and ground water contamination from soils are also implemented. It includes provisions to improve soil conditions through good agricultural practices by adopting winter cover crops and soil conservation practices in areas with steep slopes.

Conclusions were drawn identifying the main soil challenges in EU and measures needed to achieve sustainable soil/land management(Table 1).

Table 1. Main soil challenges in the EU and measures needed to address these.

Main soil challenges in EU	Measures needed
Soil/land degradation (implementation of the soil/land sustainable management) Land take/consumption (mitigation or elimination of soil sealing, green economy) Global threats (climate change, loss of soil biodiversity, mitigate land desertification)	Appropriate policy framework and following legislation for soil resources. Set of conservation agro-technical and forestry measures (low capital and low carbon soil management, best practices). Support in technology investment. Knowledge transfer and science-policy-farmer gaps overcome. Set of available and harmonized data to be used

	for sustainable management. Ecological awareness on natural resources. Urban areas awareness facing healthy living conditions of urban population. Integrating approach of stakeholders.

Annex 1 List of participants

Surename	**Name**	**Institution**
Achouri	Moujahed	FAO
Alshankiti	Abdullah	International Center for Biosaline Agriculture
Bhim Bahadur	Ghaley	University of Copenhagen
Bussian M	Bernd	Federal Environment Agency
Camps Arberstain	Marta	Massey University
Castro	Aracely	CIAT
de Brogniez	Delphine	EC-JRC
Encina Rojas	Arnulfo	U. Nacional de Asunción and Sociedad Paraguaya de ciencias del suelo (Sopacis)
Erdogan Emrah	Hakki	Turkish Republic Ministry of Agriculture
Espinosa Victoria	David	Colegio de Postgraduados
Etorena	Joaquin	SAYPS
Fuentes Llanillo	Rafael	IAPAR - Instituto Agronomico do Parana/ Brazilian No-Till Farmers Federation - FEBRAPDP - Brazil
Giraudo	Maria	Aapresid
Gnakambari	Zacharia	Bureau National des Sols
Guicharnaud	Rannveig	EC-JRC-ISPRA
Havlicek	Elena	Federal Office for Environment
Housková	Beata	Soil Science and Conservation Res. Institute
Krasilnikov	Pavel	Moscow State University
Lilly	Allan	James Hutton Institute
Mamo	Tekalign	Ministry of Agriculture Ethiopia
McKenzie	Neil	CSIRO
Moreira S.M.	Fatima	Universidade Federal de Lauras
Muñiz Ugarte	Olegario	Soil Institute, Havana and Cuban Society of Soil Science
Orgiazzi	Alberto	EC-JRC
R. da Silva	Manuela	FAO
Saavedra	Carlos	Helvetas Swiss Intercooperation Soil Conservation Services
Sobocká	Jaroslava	Soil Science and Conservation Res. Institute
Sommer	Rolf	CIAT
Taboada A.	Miguel	Inta Instituto de Suelos
Thorsson	Johann	Soil Conservation Service of Iceland
Vanlauwe	Bernard	International Institute of Tropical Agriculture (IITA)
Vargas	Ronald	FAO
Wiese	Liesl	Agricultural Research Council - Institute for Soil, Climate and Water
Yeboah	Edward	CSIR- Soil Res. Institution

Annex 2 Draft Plan of Action for Pillar 1

Pillar 1 Soil Management

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Contents

1. Introduction

Major problems in soil management (incl. regional aspects/biomes)
Address policies: Sustainable development goals, climate change, desertification
Respond to food security issues and soil protection
Contribute towards SD-Agenda

Proposal: Make an assessment with regional aspects as a baseline for further developing pillar 1

2. SSM methods and technologies

- Overview/state of the art
- Develop "indicators" (related to regional problems), then work on targets (in diff. regions)
- Suggestions to improve soil management

3. Information exchange: Awareness; Extension Services, Partnerships

Link with pillar 2?

4. Policy-interface

Regional/national/**global**? Added value from pillar 1?
Identify gaps for contribution (*already 2 consultants working for FAO*):

Based on overview by Maria:

Possible elements of an **information & knowledge base** (**platform for information exchange**)
Data base for approaches and technologies for soil management

Biotechnologies (genetic developments, etc.)	acc. to a) Land cover type (forest cropland, grassland) b) regional aspects (biomes…)
Pest management	
Fertilizer management	
operations: “mechanical” site preparation	
Plant spec/varieties/requirements/ expected yield ??etc	
rotation	
Farm transformation (management)	

Vision

1. Information in support of the future yield gap by better soil management
2. How much production we lose through current management
3. Promote new approaches and technologies for soil management
4. Apply/develop “indicators”/good farming practices/relationship to ecosystem services

Scope

- Major soil management problems as entrance into structure.
- Include all different land uses (incl. forests);
- consider socio-cultural aspects: provide frame conditions/guidance for implementation
- what is the product of pillar 1: not a report, but improvements of knowledge, actual action improve soil management (facilitate better actions in the field)

Indicators

- I. for success control
- I. for progress of soil protection incl. soil monitoring (desertification, soil compaction, erosion, etc.)
- I. for political mechanisms???
- Soil quality parameters ?? (parameters are measureable variables, Indicators transport and aggregate measured/monitored information for policies)